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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,242	12/22/2004	Yasushi Akiyama	2002JP311	2936
26289	7590	07/18/2006	EXAMINER	
AZ ELECTRONIC MATERIALS USA CORP. ATTENTION: INDUSTRIAL PROPERTY DEPT. 70 MEISTER AVENUE SOMERVILLE, NJ 08876			WU, IVES J	
			ART UNIT	PAPER NUMBER
			1724	

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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DETAILED ACTION

(1). Applicants' Request-for-Continued Examination (RCE), Amendments and Remarks filed on June 12, 2006 have been received and acknowledged.

Claims 1 and 2 are amended. New ground rejections for claims 1-11 are presented herein.

Claim Objections

Claim 6 is objected to because of the following informalities: In claim 6, it recites: "f necessary", it would be proper to cite "if necessary". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

(2). **Claims 1-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Toshisuke et al (JP 11-124531) in view of Mineo et al (JP 08-044066).

(3). As to the fluorine-containing polymer comprising a polymer unit represented in general formula (1) in an anti-reflective coating composition in **independent claim 1**, Toshisuke et al disclose a composition suitable for antireflective film on a photoresist surface containing a polymerization unit represented by $-\text{CF}_2\text{CF}(\text{OR}_f\text{COOM})-$ where R_f to be a linear or branched

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perfluoroalkylene which may contain an ether oxygen; COOM includes -COOH , -COOY ; Y to be non-substituted or substituted ammonium ion (Abstract – Solution).

As to an amine in an anti-reflective coating composition in **independent claim 1**, Toshisuke et al disclose the -COOH.Z ; Z - an amine (Abstract – Solution).

As to an aqueous solvent capable of dissolving these components in an anti-reflective coating composition in **independent claim 1**, Toshisuke et al disclose the coating composition usually dissolving components into a solvent. As a solvent, the mixed solvent of water, an organic solvent, or water and an organic solvent can be used ([0020], line 1-3).

As to the acid in an anti-reflective coating composition in **independent claim 1**, Toshisuke et al **teach** as a desirable example of a solvent, the mixed solvent of water and alcohols, such as methanol, ethanol, isopropanol, 2, 2, 3 and 3-pentafluoro propanol being mentioned ([0021]).

Toshisuke et al **do not teach** an acid in the composition.

However, Mineo et al (JP 08-044066) **teach** water used for constituent as a solvent, and mixed water and organic solvent such as low-grade alkyl carboxylic acids such as acetic acid, lower alcohol such as methanol, ethanol and propanol maybe used ([0022]).

In view of functionally equivalent organic solvents such as alcohols, acetic acid used in the mixture with water disclosed by Mineo et al, it would have been obvious at time the invention was made to replace the alcohol for the mixture with water taught by Toshisuke et al with low-grade alkyl carboxylic acid such as acetic acid taught by Mineo et al for the solvent in the coating composition of Toshisuke et al based on their interchangeability as recognized functional equivalence as organic solvent for the mixture with water.

As to the coating composition having pH ranging from about 1.0 to about 6.0 in **independent claim 1**, in view of substantially identical coating composition disclosed by Toshisuke et al with Mineo et al, and by applicants, it is examiner's position to believe that the coating composition of prior arts would inherently possess the pH ranging from 1.0 – about 6.0 as claimed. Since USPTO does not have proper means to perform the measurements, the burden now is shifted to applicants to prove otherwise. *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

As to limitation of **claim 2**, Toshisuke et al disclose 2nd polymerization unit represented by –CF₂CFX- (Abstract, Solution).

As to limitation of **claim 3**, Mineo et al disclose low-grade alkyl carboxylic acids such as acetic acid ([0022], line 1-5).

As to limitation of **claim 4**, Toshisuke et al disclose alkanolamines, such as ethanolamine, alkylamine such as ethylamine, propylamine and diethylamine ([0015]).

As to limitation of **claim 5**, Toshisuke et al disclose water as a solvent ([0020]).

As to limitation of **claim 6**, Toshisuke et al the coating constituent which can be form the antireflection film which has a low refractive index suitable as antireflection film on the front face of a photoresist layer, and can be especially removed thoroughly with a developer at the time of photoresist development. By using this constituent, it contributes to high yield of a pattern formation process ([0044]).

As to the limitations of **claims 7-11**, in view of substantially identical coating composition disclosed by Toshisuke et al with Mineo et al, and by applicants, it is examiner's position to believe that the coating composition of prior arts would inherently possess the pH ranges as claimed. Since USPTO does not have proper means to perform the measurements, the burden now is shifted to applicants to prove otherwise. *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

Response to Arguments

Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ives Wu whose telephone number is 571-272-4245. The examiner can normally be reached on 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner: Ives Wu

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Date: July 10, 2006

DUANE SMITH
PRIMARY EXAMINER

D. A.
7-11-06